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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,108

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EXAMINER

MULLER, BRYAN R

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

06/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,108	Applicant(s) WEILAND, JOSEF	
	Examiner BRYAN R. MULLER	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-44, 46, 48-50, 52-76 and 78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-44, 46, 48-50, 52-61, 63, 64, 71-76 and 78 is/are rejected.
- 7) ☒ Claim(s) 62 and 65-70 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The information disclosure statement (IDS) submitted on 2/13/2007 has been considered by the examiner. However, for better understanding of the foreign NPL documents, the examiner **requests a certified translation of both of the Ingromat references cited in the IDS as Non Patent Literature Documents.**

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the conveyors that guide the at least one brush obliquely with respect to an advance direction of the workpiece (claim 39) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The objection to this claim regarding the phrase "one of obliquely" being removed was not objecting to the removal of the phrase, but was objecting to the removal without the proper indication (striketthrough) of the removed portion of the claim. Thus, it is again suggested that the applicant remove the PHRASE "one of obliquely" and provide the proper indicating marks when doing so.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 39-42, 46-50, 53, 54, 58, 59, 71-74 and 78 are rejected under 35 U.S.C. 103(a) as obvious over The Ingromat-Cleaner CH 29 publication (to be referred to hereinafter as Ingromat) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ingromat in view of Herrington (2,767,413).

5. In reference to claim 39, the Ingromat reference discloses (on pages 16, 17 and 31) an apparatus for machining a workpiece being one of strip or plate form having first

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and second main surfaces for removing material from at least one of the first and second main surfaces of the workpiece wherein the apparatus comprises at least first, second, third and fourth conveyor devices and each of the first, second, third and fourth conveyor devices has at least one brush, each of at least first, the second, the third and the fourth conveyor devices guides the respective at least one brush at least approximately linearly past a region of the workpiece to be machined transversely with respect to an advance direction of the workpiece, two of the conveyor devices (any two consecutive conveyors in the direction of advancement seen on the top surface on page 31; direction of rotation shown on page 17) rotate in opposite directions and are positioned for treating a first main surface of the workpiece, the other two conveyor devices (any two consecutive conveyors in the direction of advancement seen on the bottom surface on page 31; direction of rotation shown on page 17) rotate in opposite directions and are positioned for treating the second main surface of the workpiece, and the first, second, third and fourth conveyor devices rotate so as to guide brushes along the first and second main surfaces of the workpiece. Although the Ingromat reference does not specifically disclose that the first, second, third and fourth conveyor devices rotate so as to guide brushes along the *entirety* of a length available for the workpiece to pass through, the Ingromat reference does disclose other embodiments (pages 4-7) having two conveyor devices that are located along respective first and second main surfaces of the workpiece and rotate so as to pass brushes along the entirety of a length available for the workpiece to pass through on the first and second main surfaces of the workpiece, thus providing equal contact between the brushes and the entire main

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surfaces of the first and second sides of the workpiece, which will provide a uniform cleaning effect along the entirety of both main surface of the workpiece because the same number of brushes will contact the entirety of each main side of the workpiece. Therefore, it would have been obvious to one of ordinary skill in the art to extend each of the plurality of conveyor devices shown on pages 16, 17 and 31, such that every conveyor device will guide their respective brushes over the entirety of a length available for the workpiece to pass through on the respective first and second main sides of the workpiece to provide an even and uniform cleaning effect to every portion of both main surfaces of the workpiece instead of providing twice the number of brushes contacting a middle, overlapping portion as the number of brushes contacting either side of each main surface of the workpiece, as shown in the embodiment on pages 16, 17 and 31. The combination of the two embodiments disclosed in the Ingromat reference is essentially substituting a known element (conveyors passing over a portion of the main surface of the workpiece from pages 16, 17 and 31) with another (conveyor passing across the entire main surface of a workpiece from pages 4-7) to obtain predictable results (an apparatus having multiple conveyor devices, rotating in a direction opposite the direction of adjacent conveyor devices, wherein every conveyor passes over the entirety a respective main surface of a workpiece will predictably provide a thorough and uniform cleaning effect to the main surfaces of the workpiece). Additionally, the Ingromat reference fails to disclose that the apparatus is used to remove an oxide layer from a surface of the workpiece. However, it would have been obvious that the brushes and conveyor devices, as disclosed in the Ingromat reference,

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being adjustable with respect to the workpiece to adjust contact pressure between the brushes and the workpiece, may be capable of removing at least a portion of an oxide layer from a surface of a workpiece over a given amount of time or treating the surface by cleaning debris off of the surface, which may be considered to be "machining" in the broadest reasonable interpretation of the term. In the alternative, Harrington discloses a similar apparatus that is disclosed as being used to remove scale, which is well known in the art as being an oxide layer, from metallic surfaces and comprises multiple rotary brushes that engage a first main surface of a workpiece that is in strip or plate form. Harrington further discloses specific bristle material for the brushes that is capable of removing the oxide layer. Harrington however only removes the oxide layer from one main surface of the workpiece at a time and due to the round shape of the brushes may only remove the oxide layer from a limited width on the main surface of the workpiece. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Ingromat apparatus with brushes having the bristles disclosed by Harrington to allow the Ingromat apparatus to remove oxide layers from a large area of both the first and second main surfaces of a workpiece at the same time in order to provide a much more efficient and effective apparatus for removing oxide layers from metallic workpieces that may be used on much larger workpieces than the apparatus of Harrington. It is obvious that the brushes are removable and interchangeable in the Ingromat apparatus, thus providing the apparatus with an alternative set of brush conveyors having bristles capable of removing scale, as taught

by Herrington, would provide the apparatus with an alternative function that may be interchanged with the intended function disclosed in the Ingromat reference.

6. In reference to claim 40, the Ingromat reference further discloses that the conveyor devices are positioned in a lying position such that the at least one brush on each of the first, second, third and fourth conveyor devices runs substantially horizontally along the workpiece in a lying position.

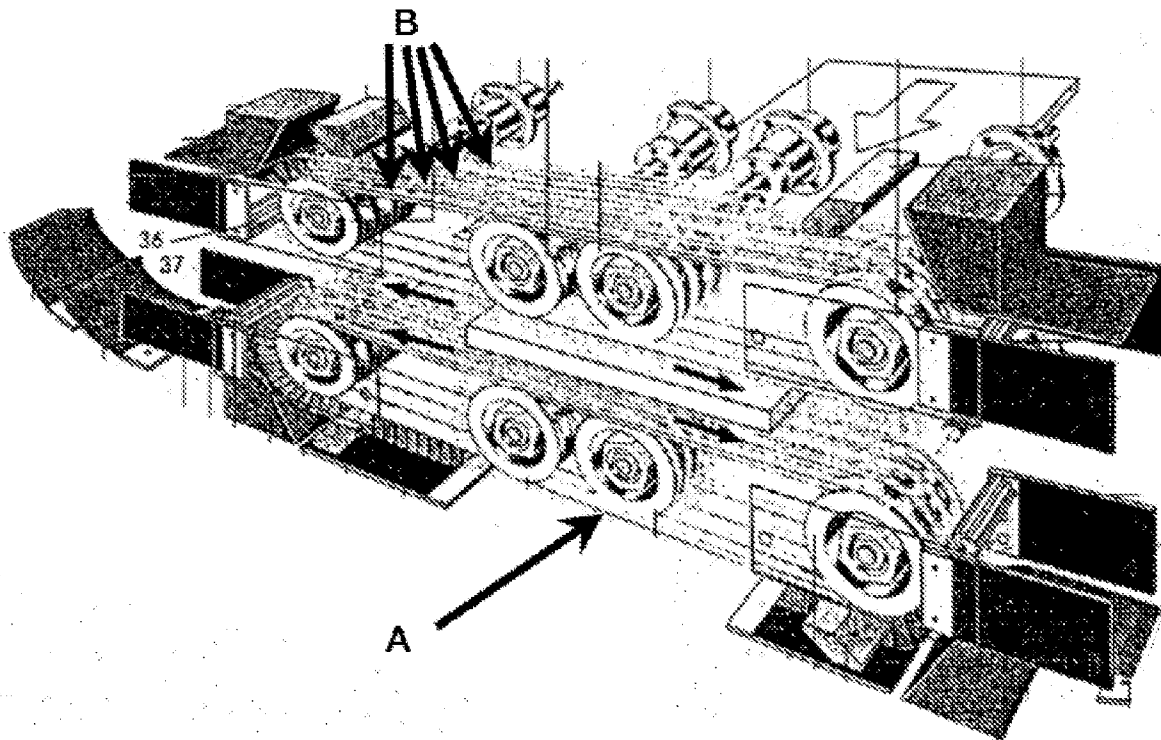
7. In reference to claim 41, the Ingromat reference further discloses that the workpiece is guided between the first and the second conveyor devices (the first conveyor being any of the conveyors on the upper portion of the apparatus and the second conveyor being any of the conveyors on the lower portion of the apparatus) such that each of the first and second conveyor devices machines one of the first and second main surfaces of the workpiece.

8. In reference to claim 42, the Ingromat reference further discloses that the direction of rotation of the first and second conveyor devices is selected such that the brushes of the first and second conveyor devices are guided past the opposed first and second main surfaces of the workpiece in a same direction, wherein the first and second conveyor devices are considered to be any respective conveyors on opposite sides of the workpiece that rotate in the same direction.

9. In reference to claim 46, the Ingromat reference discloses an apparatus capable of “machining” a workpiece being one of strip or plate form having first and second main surfaces for removing material from at least one of the first and second main surfaces of

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the workpiece wherein the apparatus comprises at least first and second conveyor devices and each of the first and second conveyor devices has at least one brush, wherein the brushes disclosed may be capable of removing an oxide layer or alternatively it would have been obvious to replace the brush bristles of the Ingromat reference with the brush bristles disclosed by Herrington to allow the Ingromat apparatus to remove oxide layers from workpieces, as discussed supra, each of the at least first and second conveyor devices guides the respective at least one brush at least approximately linearly past a region of the workpiece to be treated transversely with respect to an advance direction of the workpiece, the first and second conveyor devices rotate in opposite directions and the first conveyor device is positioned for treating the first main surface of the workpiece while the second conveyor device is positioned for treating the second main surface of the workpiece and the first and second conveyor devices are arranged slightly offset with respect to one another in the advance direction in which the workpiece passes through. The first and second conveyor devices will be offset from one another in the embodiment shown on pages 16, 17 and 31, wherein for example, the first conveyor is considered to be the front most conveyor on the lower surface (A below) and the second conveyor is considered to be any of the conveyors on the upper surface that rotate in an opposite direction to the first conveyor (any one of B below), all of which are offset in the direction of advancement of the workpiece from the first conveyor.



10. In reference to claim 48, the Ingromat reference further discloses that each of the conveyor devices have a plurality of brushes.

11. In reference to claim 49, the Ingromat reference further discloses a guide passage between the upper and lower sections which may be set to a thickness of the workpiece by which the workpiece may be displaced with guidance transversely with respect to the direction of rotation of the at least one of the conveyor devices.

12. In reference to claim 50, the Ingromat reference further discloses that an adjustment means for adjusting the distance between the first and second conveyor devices, which makes the apparatus inherently capable of displacing or adjusting the first and second conveyor devices with respect to one another to correct for wear of the at least one brush.

13. In reference to claim 53, both the Ingromat reference and Herrington disclose that the bristles of each brush fan out away from the support, thus causing a variety of angles formed between the bristles and the support, thus disclosing that at least some of the bristles are inclined by up to 45° in the direction of rotation.

14. In reference to claim 54, the bristles disclosed by the Ingromat reference and by Herrington are bunched together, thus it would further be obvious that the bristles act to support one another making each of the brushes provided with supporting and stabilizing bristles.

15. In reference to claim 58, the Ingromat reference further discloses that each of the conveyor devices has an independent drive.

16. In reference to claim 59, the Ingromat reference further discloses that each of the conveyor devices may be a V-belt as shown on page 33.

17. In reference to claim 71, the Ingromat reference further discloses a resistance element (first shown on the bottom of page 17 and more clearly shown as numbers 36 and 37 on page 31) that is located downstream from a diversion point of the conveyor device, as seen in the direction of rotation, before one of the brush or bristles resumes contact with the workpiece.

18. In reference to claim 72, the Ingromat reference further discloses that the resistance element is located in a region in which the brush or bristles leave the circular path produced by the diversion point of the conveyor device and returns to a linear or rectilinear movement.

19. In reference to claim 73, the Ingromat reference further discloses that the resistance element mechanically prevents the bristles from yielding in the direction of rotation.

20. In reference to claim 74, the Ingromat reference further discloses that the resistance element is introduced into a path of the brush or bristles such that tips of the bristles butt against the resistance element.

21. In reference to claim 78, the Ingromat reference or alternatively the Ingromat reference in view of Herrington, as discussed supra discloses an apparatus comprising at least first and second conveyor devices each having at least one brush guided at least approximately linearly past a region of the workpiece to be treated transversely with respect to an advance direction of the workpiece, the first and second conveyor devices rotate in opposite directions to one another and are positioned for respectively treating the first and second main surface of the workpiece and the first and second conveyor devices are both either inherently capable of or would obviously be modified to rotate so as to guide the brushes along an entirety of the first and second main surface of the workpiece, as discussed supra.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Ingromat reference or alternatively the Ingromat reference in view of Herrington, as discussed supra, and further in view of McCormick et al. (2,958,882).

3. The Ingromat reference discloses the apparatus wherein it the brushes disclosed may be capable of removing an oxide layer or alternatively it would have been obvious to replace the brush bristles of the Ingromat reference with the brush bristles disclosed by Herrington to allow the Ingromat apparatus to remove oxide layers from workpieces, as discussed supra. However, the Ingromat reference fails to disclose a base plate or that the apparatus is arranged in a standing position such that the first and second conveyor devices are guide the respective brushes past the workpiece wither ion the direction of the base plate or from a top of the apparatus downward. It clearly would have been obvious that the Ingromat apparatus may be oriented vertically if desired to treat a workpiece that is in an upright position. In this case, the conveyor devices and advance direction of the workpiece will all be relatively situated in the same orientation as the apparatus disclosed by McCormick. McCormick further discloses a base plate in the form of a tabletop that is necessary to support the workpieces during treatment by the conveyor devices. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that in order to use the Ingromat apparatus to treat a workpiece in a vertical orientation, the Ingromat apparatus would require a base plate to support the workpiece wherein at least one of the conveyor devices on either

side of the workpiece, which may be considered to be respective first and second conveyor devices, will be rotating so as to guide the brushes toward the base plate or from a top of the apparatus downward.

4. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Ingromat reference or alternatively the Ingromat reference in view of Herrington, as discussed supra, and further in view of Derby (559,166).

5. The Ingromat reference discloses the apparatus wherein it the brushes disclosed may be capable of removing an oxide layer or alternatively it would have been obvious to replace the brush bristles of the Ingromat reference with the brush bristles disclosed by Herrington to allow the Ingromat apparatus to remove oxide layers from workpieces, as discussed supra. However, the Ingromat reference fails to disclose a delimiting plate in the apparatus. In the orientation of the Ingromat apparatus as disclosed, the workpiece is fed relative to the conveyor devices in a similar manner as the workpieces as disclosed by Derby wherein Derby further discloses clamping blocks (d^6), which may also be considered to be delimiting plates, located on either side of the workpiece to prevent the workpiece from being pushed out of position by the motion of the conveyor devices having treating parts thereon. Therefore, it further would have been obvious to provide the Ingromat apparatus with similar clamping blocks or delimiting plates to maintain the workpiece in a desired position during treatment, as taught by Derby. In this case, any two of the conveyor devices that guide their respective brushes in the same direction may be considered to be the first and second conveyor devices, which will

both guide the brushes along the workpiece in the direction of a delimiting plate which guides the workpiece at one side.

6. Claims 52, 55-57, 60, 61, 63, 64, 75 and 76 are rejected under 35 U.S.C. 103(a) as obvious over Ingromat in view of Herrington (2,767,413).

7. In reference to claim 52, when using the bristles disclosed by Herrington in place of the bristles of the Ingromat reference, as discussed supra, it would further be obvious that the bristles must be at least somewhat abrasive to remove an oxide layer from metal.

8. In reference to claim 55, the base of the bristles disclosed by the Ingromat reference and by Herrington are both surrounded by some portion of the support wherein the surrounding portion may be considered to be a stabilizing and supporting sheath.

9. In reference to claim 56, page 33 of the Ingromat reference shows the brush bristles to be formed as part of a belt of the conveyor device, thus it would have been obvious to one of ordinary skill in the art that the bristles may be coupled to the respective conveyor device by a bond to form a strong connection between the brushes and the conveyor devices.

10. In reference to claim 57, the Ingromat reference fails to disclose a specific rotational speed for the brush, but it would be obvious that different speeds would be desired for different work pieces under different circumstances and it would further be

found obvious through routine experimentation, depending on the desired work piece, to rotate the brushes at a speed within 5-30m/s.

11. In reference to claim 60, the Ingromat reference discloses that each of the conveyor devices may be a V-belt, as discussed supra relative to claim 59, and the Ingromat reference further discloses that the conveyor devices may have different widths. Therefore, it would further be obvious when the conveyor device has larger widths to make the conveyor device in the form of a double or triple V-belt to accommodate the extra width and brushes required without increasing the thickness of the belt. It would further be obvious that in the case of a triple V-belt, at the middle V-belt would accommodate at least some of the brushes.

12. In reference to claim 61, it would further be obvious to form the V-belt, as disclosed by the Ingromat reference, out of rubber because it is old and well known in the art to form V-belts out of rubber material.

13. In reference to claim 63, as discussed supra, it would have been obvious to form the V-belt out of rubber and to attach the brushes or the bristles to the V-belt by a bond.

14. In reference to claim 64, it would further be obvious that at least the top portion of the V-belt may be considered to be the carrier because the top portion carries the brushes and that the middle portion of the V-belt may also be considered to be an elevation on the top of the V-belt for guiding and supporting the carrier.

15. In reference to claim 75, as discussed supra, it would have been obvious that each of the conveyor devices is a V-belt having bristles coupled onto a top side thereof

by a bond either directly or via a carrier and at least some of the bristles are inclined by up to 45° in the direction of rotation of the V-belt.

16. In reference to claim 76, the Ingromat and Herrington references makes obvious an apparatus for machining (removing oxide or scale) a workpiece wherein each of the first, second, third and fourth conveyor devices will ensure contact along the entire respective first or second surface of the workpiece (in reference to claim 39) and wherein the first and second and the third and fourth conveyor devices are respectively offset to one another along a direction of travel of the workpiece on the opposite first and second sides of the workpiece, as discussed supra, wherein a method for machining a metallic workpiece to remove an oxide layer from a surface thereof will inherently comprise the steps of providing and operating the first, second, third and fourth conveyor devices such that at least one brush runs at least approximately linearly across a desired surface of the workpiece, guiding the workpiece past the first, second third and fourth conveyor devices transversely with respect to a direction of rotation of the conveyor devices, the first and third conveyor devices rotating in opposite directions and machining the first surface of the workpiece and the second and fourth conveyors rotating in opposite directions and machining the second surface of the workpiece, aligning the first and second conveyor devices in an offset manner along a travel direction of the workpiece on the opposite first and second sides of the workpiece and aligning the third and fourth conveyor devices in an offset manner also along the travel direction of the workpiece on the opposite first and second sides of the workpiece and ensuring contact between the first, second, third and fourth conveyor devices and each

of their respective brushes along the entire respective first and second surfaces of the workpiece.

Allowable Subject Matter

17. Claims 62 and 65-70 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

18. Applicant's arguments filed 4/1/2008 have been fully considered but they are not persuasive.

19. The applicant first argues that the brushes of the Ingromat reference are not capable of "machining" the surface of a workpiece. The applicant references figures in the argument that show the bristles not being in contact with the workpiece and argues that the bristles of the Ingromat reference do not contact the surface, thus are not capable of machining. However, the drawings included in the argument do not appear to actually be part of the Ingromat publication that is cited by the Examiner, but are assumed to be found in more recent on-line publications by the Ingromat Company for similar machines. Thus, as best understood by the Examiner, the actual cited reference *does not* disclose that the brushes do not contact the workpiece. Further, the apparatus disclosed in the Ingromat reference does disclose that the relative position of upper and

lower brushes/conveyors is adjustable such that the brushes of the Ingromat reference would be inherently capable of contacting the workpiece and of adjusting the contact pressure, which would obviously provide the brushes with the ability to remove at least a portion of an oxide layer from the workpiece. The applicant also argues that the Ingromat reference is not capable of "machining" a workpiece, based on the Wikipedia definition that limits "machining" to "working processes using power tools such as lathes, milling machines and drill presses to shape metal or plastic by removing excess material". However, Wikipedia is a free-content encyclopedia that receives data, such as definitions from undisclosed sources and is not always considered to be reliable, the definition provided by the applicant for "machining" is not considered to be the broadest reasonable interpretation of the term **and** based on the definition provided by the applicant, as best understood by the Examiner, the applicant's invention is also incapable of "machining". As best understood, the applicant's apparatus removes an oxide layer, which is formed on the metal workpiece, but does not actually remove any excess material of the workpiece itself, nor does the applicant's apparatus read on a lathe, milling machine or drill press. Thus, the term "machining" must be interpreted more broadly than the definition disclosed by the applicant for the applicant's apparatus to be capable of "machining". A known dictionary definition of "machining" is "to make, prepare, or finish with a machine or with machine tools"¹, wherein the brushes of the Ingromat apparatus, even when only used for cleaning a workpiece may be considered to be finishing, which is clearly performed by a machine. Therefore, the Ingromat

¹ *Dictionary.com Unabridged (v 1.1)*

reference is capable of "machining" in its broadest reasonable interpretation. Further, the rejections of all claims provide at least an alternative rejection in view of Herrington, which provides the Ingromat apparatus with brushes that are intended for identical use as the brushes in the applicant's invention, thus reading on "machining" in every way that the applicant's invention does.

20. The applicant further argues that the combination of the Ingromat reference and the Herrington reference to provide the Ingromat reference with brushes capable of removing an oxide layer (or scale) from a workpiece is improper because the applicant argues that the Ingromat and Herrington apparatuses are fundamentally different devices and that the brushes of Herrington would cause the Ingromat apparatus to mar the surface of a workpiece and destroy the intended function of the Ingromat reference. However, both of the Ingromat and Herrington references are machines that move brushes along the surface of a workpiece, being in strip or plate form, to remove material from the surface of the workpiece. The only fundamental difference between the apparatuses of Ingromat and Herrington is the type of brushes and the intended function provided by the brushes. Therefore, it would clearly have been obvious to provide alternate brushes for the Ingromat reference to provide the apparatus with additional functions. Thus, a user would clearly be able to use the Ingromat apparatus for the intended use disclosed in the Ingromat reference or would be able to replace the brushes on the apparatus to allow a used to remove oxide layers from both sides of a workpiece simultaneously, The obvious advantage being that a single machine may be

used for multiple functions. The Examiner maintains that a *prima facie* case of obviousness has been established for replacing the brushes of the Ingromat reference with brushes similar to those disclosed by Herrington.

21. The applicant also argues that the Ingromat reference does not provide the claimed apparatus of claim 39 wherein each of the conveyors guides the brushes along an entirety of *a length available for the workpiece to pass through*. However, as discussed in the previous Office Action and in the above rejection of claim 39, although the Ingromat reference does not anticipate the amended claim language, it would have been obvious in view of the different embodiments disclosed in the Ingromat reference that more than one brush may be provided on each side of the workpiece that will pass along the entirety of a length available for the workpiece to pass through, as discussed *supra*.

22. Finally, with regard to claim 46, the applicant further argues that there is no clear reference that conveyor devices are offset from one another on each side of the Ingromat device. However, for clarification, the Examiner has included a drawing taken from the Ingromat reference to specifically point out the brush conveyors that are offset from one another and rotate in opposite directions. The applicant also argues that the offset brushes of the Ingromat apparatus would not provide the same advantages as the applicant's claimed invention because the Ingromat reference puts no pressure on the brushes. However, as discussed *supra*, the Ingromat apparatus is capable of applying pressure between the brushes and the workpiece and regardless of the applicant's intended advantage, the Ingromat reference does provide all of the limitations regarding

the positioning of the conveyor devices relative to one another, as they are claimed in claim 46. Therefore, the applicant's intended advantage is moot in the apparatus claims.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peterson (2,989,764), Fenton (2,158,694), Shimogori et al (4,406,761), Thym et al (3,983,889), Bogese (3,720,973), Seufert (582,509), Lisec (5,237,716), Armstrong (3,885,356), Paddock (2,312,186), Weber et al (2005/0005374), Rajala et al (2003/0140942), Johnson et al (5,679,067) and Hutchinson et al (5,634,397) all disclose apparatuses having at least some similar structure to the applicant's claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN R. MULLER whose telephone number is (571)272-4489. The examiner can normally be reached on Monday thru Thursday and second Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail III can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Bryan R Muller/
Examiner, Art Unit 3723
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